

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("6344206").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 14:16
L2	4	(papaioannou drainas tsambaos). in. and polyamine	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 14:18

=> b reg

FILE 'REGISTRY' ENTERED AT 18:25:26 ON 29 AUG 2007  
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STRUCTURE FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6  
 DICTIONARY FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when  
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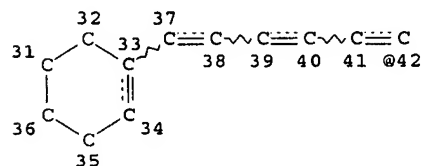
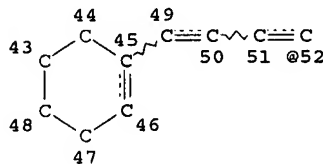
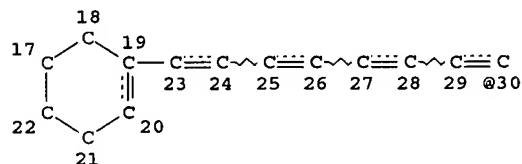
REGISTRY includes numerically searchable data for experimental and  
 predicted properties as well as tags indicating availability of  
 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d que sta l3

L1 STR

G1-G2-C-C-C-G3-C-C-Ak-C-G3-C-C-C-G2-G1  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



VAR G1=30/42/52

REP G2=(2-3) A

VAR G3=C/N/O/S

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 52

STEREO ATTRIBUTES: NONE

L3 2 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 281223 ITERATIONS  
 SEARCH TIME: 00.00.16

2 ANSWERS

=> b hcap

FILE 'HCAPLUS' ENTERED AT 18:25:39 ON 29 AUG 2007  
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FILE COVERS 1907 - 29 Aug 2007 VOL 147 ISS 10  
FILE LAST UPDATED: 28 Aug 2007 (20070828/ED)

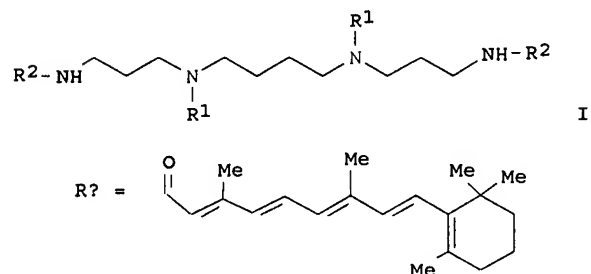
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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitstr 14 tot

L4 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN  
AN 2004:182730 HCAPLUS  
DN 140:235912  
TI Preparation of polyamine conjugates with acidic retinoids and their therapeutic applications  
IN Papaioannou, Dionysios; Drinas, Dionysios; Tsambaos, Dionysios  
PA Greece  
SO PCT Int. Appl., 45 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO2004018001	A1	20040304	2002WO-GR00045	20020822
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU2002324242	A1	20040311	2002AU-0324242	20020822
EP---1569694	A1	20050907	2002EP-0758661	20020822
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US2006189696	A1	20060824	2005US-0549905	20050920
PRAI 2002WO-GR00045	A	20020822		
OS MARPAT 140:235912				
GI				



AB The present invention discloses preparation of novel polyamine conjugates with acidic retinoids, such as I [R1 = H, Ra; R2 = H, Ra], for their therapeutic use as RNase P inhibitors and anti-inflammatory agents. I

have been readily obtained using as key-step the condensation of linear, conformationally restricted, cyclic and branched polyamines or suitably protected derivs. with vitamin A derivs. These compds. inhibit the ribozyme RNase P (RNase P) and the production of interleukin-2 (IL-2) and interferon- $\gamma$  (INF- $\gamma$ ) by peripheral blood mononuclear cells in vitro. Thus, retinoid analog I [R1 = Ra; R2 = H (II)] was prepared via multistep synthetic sequence starting from I [R1 = H, R2 = COCF3]. (CF<sub>3</sub>CO<sub>2</sub>H)<sub>2</sub> and all-trans-retinoic acid. II was tested for D. discoideum RNase P activity [K<sub>i</sub> = 1.1  $\mu$ M].

IT 666854-46-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

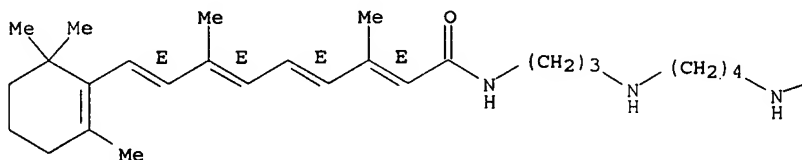
(coupling agent; preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)

RN 666854-46-2 HCAPLUS

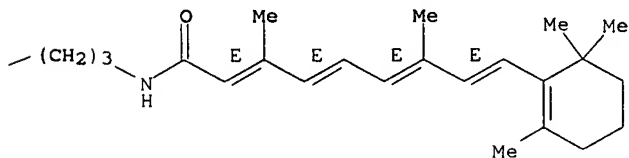
CN Retinamide, N,N'-[1,4-butanediylbis(imino-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



IT 666854-47-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)

RN 666854-47-3 HCAPLUS

CN Retinamide, N,N'-[1,4-butanediylbis(imino-3,1-propanediyl)]bis-, compd. with 1-hydroxy-2,5-pyrrolidinedione (1:2) (9CI) (CA INDEX NAME)

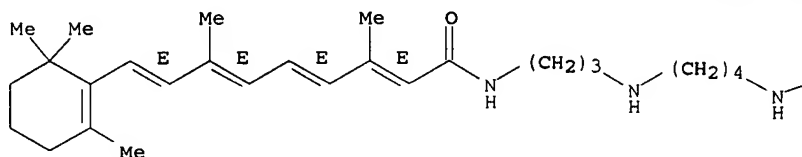
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CRN 666854-46-2

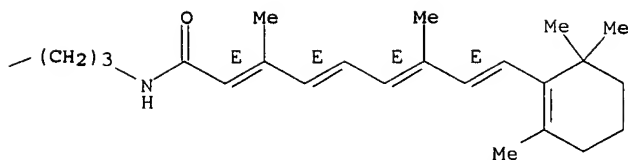
CMF C50 H78 N4 O2

Double bond geometry as shown.

PAGE 1-A

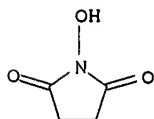


PAGE 1-B



CM 2

CRN 6066-82-6  
CMF C4 H5 N O3



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=&gt; =&gt; b uspatall

FILE 'USPATFULL' ENTERED AT 18:26:12 ON 29 AUG 2007

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FILE 'USPATOLD' ENTERED AT 18:26:12 ON 29 AUG 2007

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FILE 'USPAT2' ENTERED AT 18:26:12 ON 29 AUG 2007

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=&gt; d bib abs hitstr l6 tot

L6 ANSWER 1 OF 1 USPATFULL on STN

AN 2006:222410 USPATFULL

TI Polyamine conjugates with acidic retinoids and preparation thereof

IN Papaioannou, Dionysios, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF PATRAS,  
PATRAS, GREECE 26504

Drainas, Dionysios, Patras, GREECE

Tsambaos, Dionysios, Rio Patras, GREECE

PI US-20060189696 A1 20060824

AI 2002US-000549905 A1 20020822 (10)

2002WO-GR00000045 20020822

20050920 PCT 371 date

DT Utility

FS APPLICATION

LREP George B Georgelus, Pkm 143, 152 Congressional Lane, Rockville, MD,  
20852, US

CLMN Number of Claims: 11

ECL Exemplary Claim: 1

DRWN 12 Drawing Page(s)

LN.CNT 832

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Invented are novel polyamine conjugates which have been readily obtained using as key-step the condensation of linear, conformationally restricted, cyclic and branched polyamides or suitably protected derivatives with vitamin A derivatives. These compounds inhibit the ribozyme ribonuclease P (RNase P) and the production of interleukin-2 (IL-2) and interferon- $\gamma$  (INF- $\gamma$ ) by peripheral blood mononuclear cells in vitro.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 666854-46-2P

(coupling agent; preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory

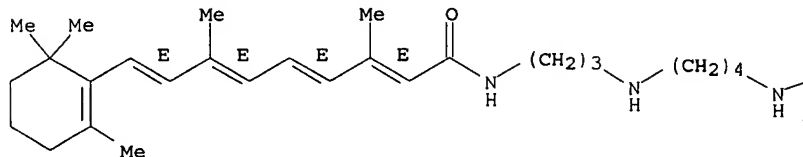
agents)

RN 666854-46-2 USPATFULL

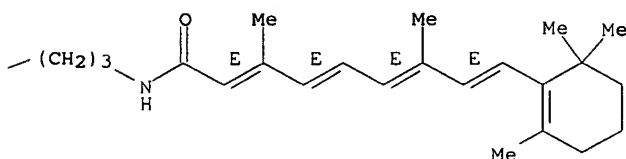
CN Retinamide, N,N'-[1,4-butanediylbis(imino-3,1-propanediyl)]bis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



IT 666854-47-3P

(preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)

RN 666854-47-3 USPATFULL

CN Retinamide, N,N'-[1,4-butanediylbis(imino-3,1-propanediyl)]bis-, compd. with 1-hydroxy-2,5-pyrrolidinedione (1:2) (9CI) (CA INDEX NAME)

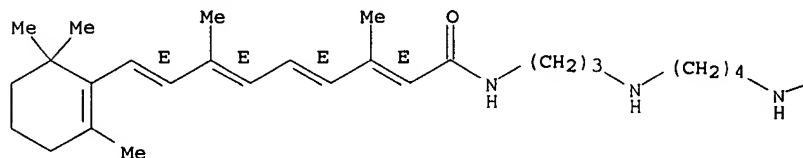
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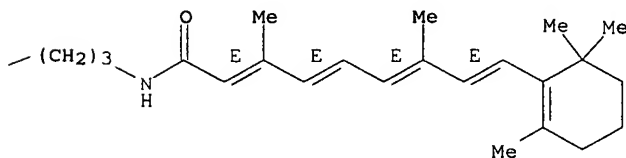
CMF C50 H78 N4 O2

Double bond geometry as shown.

PAGE 1-A



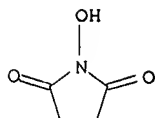
PAGE 1-B



CM 2

CRN 6066-82-6

CMF C4 H5 N O3



=> d his

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FILE 'REGISTRY' ENTERED AT 18:17:03 ON 29 AUG 2007

L1 STR  
L2 0 L1  
L3 2 L1 FULL  
SAV TEM L3 J905C1A/A

FILE 'HCAPLUS' ENTERED AT 18:24:56 ON 29 AUG 2007

L4 1 L3

FILE 'HCAOLD' ENTERED AT 18:25:53 ON 29 AUG 2007

L5 0 L3

FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 18:25:57 ON 29 AUG 2007

L6 1 L3

=> b reg

FILE 'REGISTRY' ENTERED AT 16:27:39 ON 30 AUG 2007  
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STRUCTURE FILE UPDATES: 29 AUG 2007 HIGHEST RN 945828-45-5  
 DICTIONARY FILE UPDATES: 29 AUG 2007 HIGHEST RN 945828-45-5

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

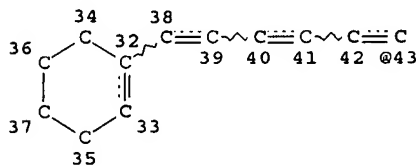
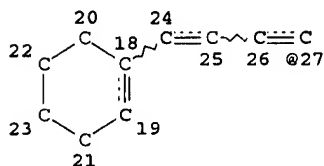
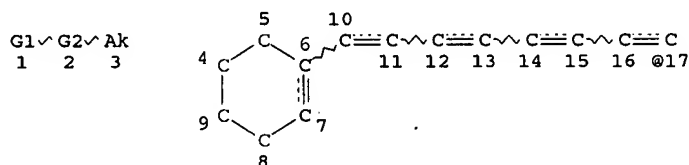
Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
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 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d que sta l14

L1 STR



VAR G1=17/27/43

REP G2=(2-3) A

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

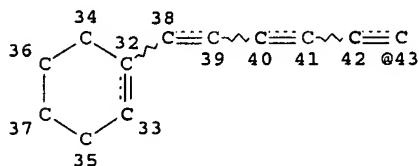
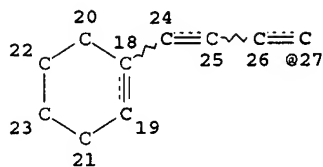
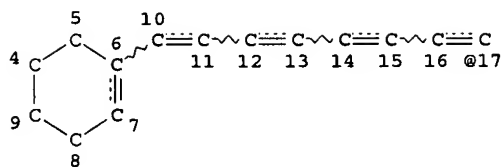
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STEREO ATTRIBUTES: NONE

L3 10259 SEA FILE=REGISTRY SSS FUL L1

L7 STR



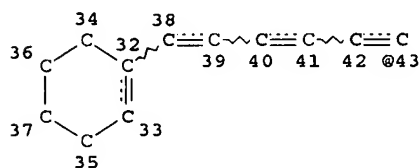
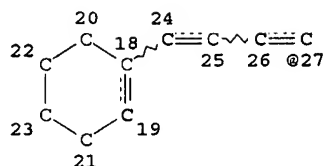
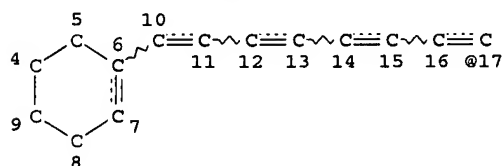


G1~G2~Ak~G3~Ak~G3~Ak~G3~Ak~G3~Ak~G2~G1  
 1 2 3 44 45 46 47 48 49 50 51 52 53

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 REP G2=(2-3) A  
 VAR G3=C/N/O/S  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
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 NUMBER OF NODES IS 49

STEREO ATTRIBUTES: NONE  
 L8 STR

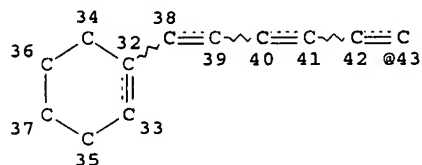
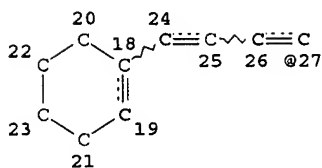
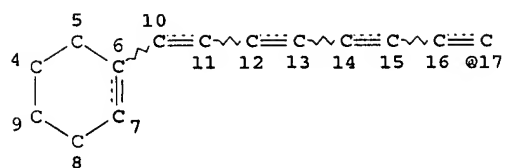


G1~G2~Ak~G3~Ak~G3~Ak~G4  
 1 2 3 44 45 46 47 48

VAR G1=17/27/43  
 REP G2=(2-3) A  
 VAR G3=C/N/O/A  
 VAR G4=F/OH/NH2/ME  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
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STEREO ATTRIBUTES: NONE  
 L9 STR

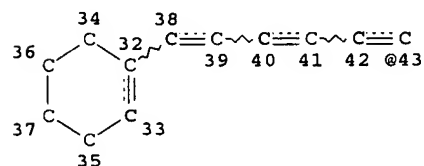
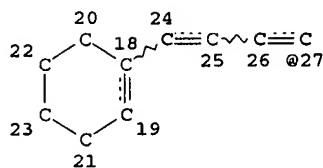
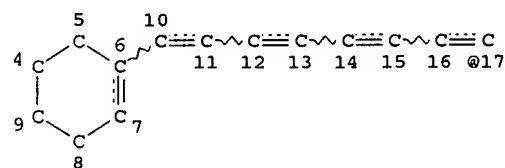


G1~G2~Ak~G4  
1 2 3 44

VAR G1=17/27/43  
REP G2=(2-3) A  
VAR G4=F/OH/NH2/ME  
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DEFAULT MLEVEL IS ATOM  
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GRAPH ATTRIBUTES:  
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NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE  
L10 STR

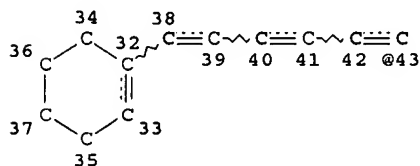
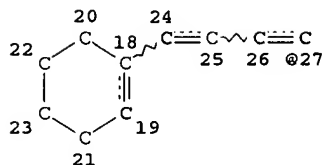
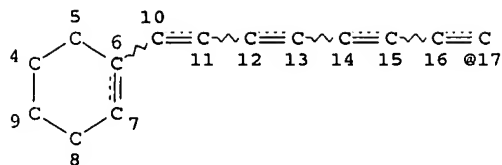


G1~G2~Ak~G3~Ak~G2~G1  
1 2 3 44 45 46 47

VAR G1=17/27/43  
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VAR G3=C/N/O/S  
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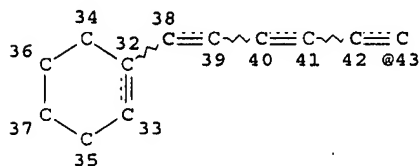
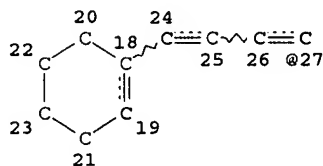
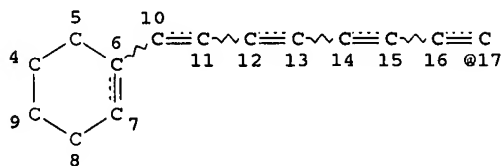


G1~G2~Ak~G3~Ak~G4  
1 2 3 44 45 46

VAR G1=17/27/43  
REP G2=(2-3) A  
VAR G3=C/N/O/S  
VAR G4=F/OH/NH2/ME  
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DEFAULT MLEVEL IS ATOM  
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STEREO ATTRIBUTES: NONE  
L12 STR



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Ak 48  
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1 2 3 44 45 46 47

VAR G1=17/27/43  
REP G2=(2-3) A  
VAR G3=C/N/O/S  
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DEFAULT ECLEVEL IS LIMITED

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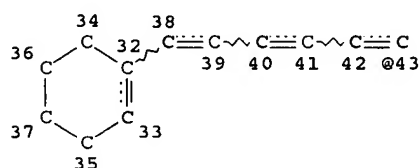
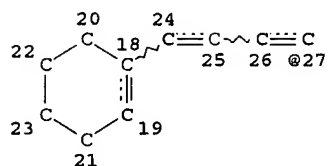
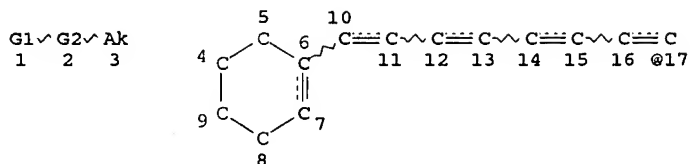
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L14 8881 SEA FILE=REGISTRY SUB=L3 SSS FUL (L7 OR L8 OR L9 OR L10 OR L11 OR L12)

91.6% PROCESSED 9397 ITERATIONS ( 163 INCOMPLETE) 8881 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.24.02

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*  
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 10259 TO 10259  
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 9400 TO 9990

=&gt; d que sta l32

L1 STR



VAR G1=17/27/43

REP G2=(2-3) A

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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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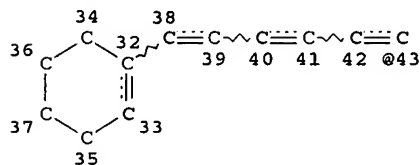
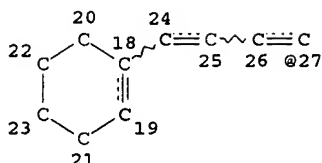
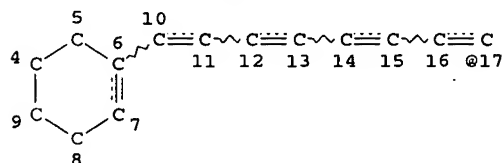
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

L3 10259 SEA FILE=REGISTRY SSS FUL L1

L7 STR



G1~G2~Ak~G3~Ak~G3~Ak~G3~Ak~G3~Ak~G2~G1  
1 2 3 44 45 46 47 48 49 50 51 52 53

VAR G1=17/27/43

REP G2=(2-3) A

VAR G3=C/N/O/S

NODE ATTRIBUTES:

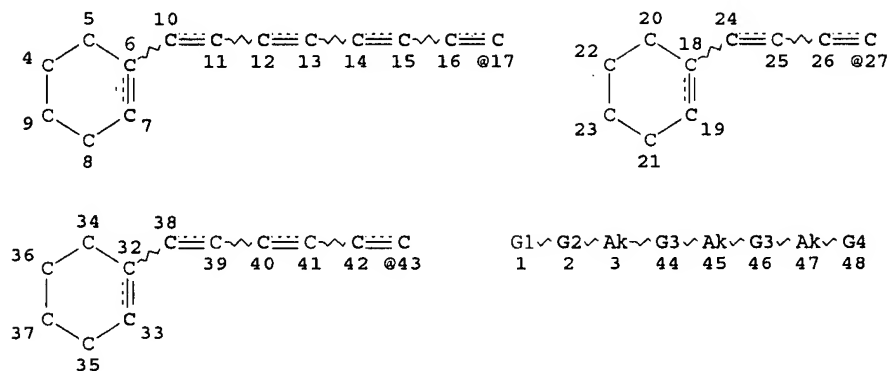
DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 49

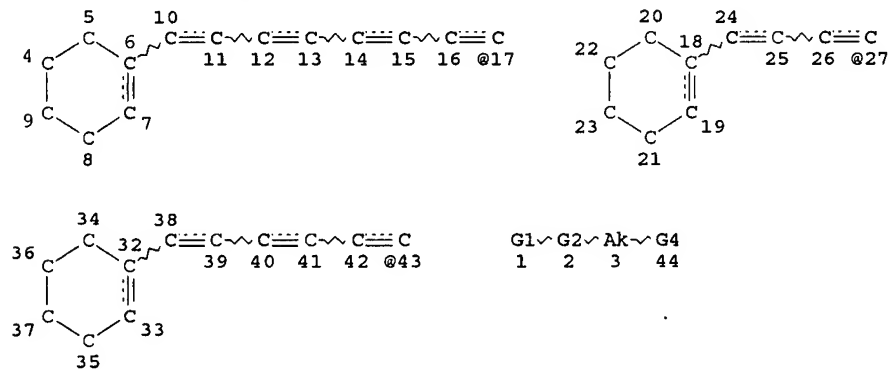
STEREO ATTRIBUTES: NONE  
L8 STR



VAR G1=17/27/43  
REP G2=(2-3) A  
VAR G3=C/N/O/A  
VAR G4=F/OH/NH2/ME  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 44

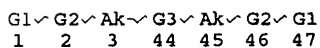
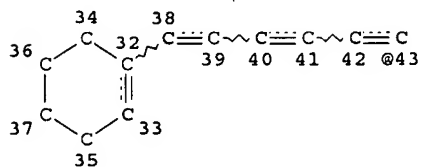
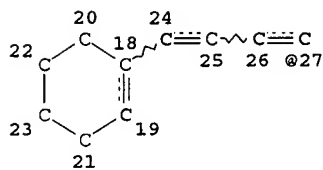
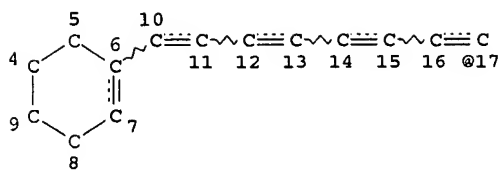
STEREO ATTRIBUTES: NONE  
L9 STR



VAR G1=17/27/43  
REP G2=(2-3) A  
VAR G4=F/OH/NH2/ME  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 40

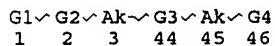
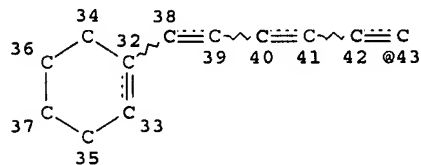
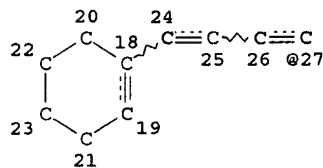
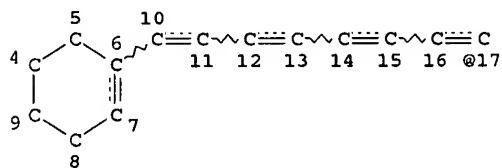
STEREO ATTRIBUTES: NONE  
L10 STR



VAR G1=17/27/43  
REP G2=(2-3) A  
VAR G3=C/N/O/S  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 43

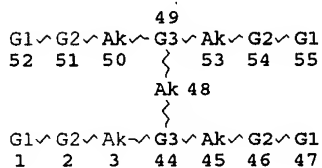
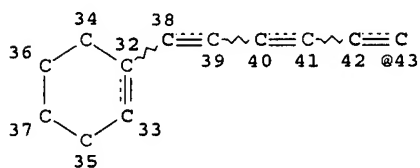
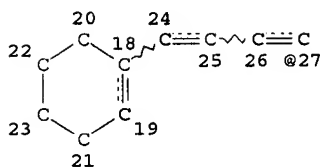
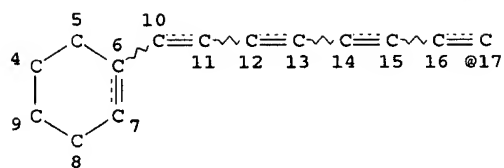
STEREO ATTRIBUTES: NONE  
L11 STR



VAR G1=17/27/43  
REP G2=(2-3) A  
VAR G3=C/N/O/S  
VAR G4=F/OH/NH2/ME  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE  
L12 STR



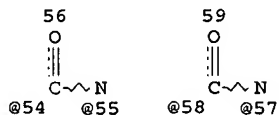
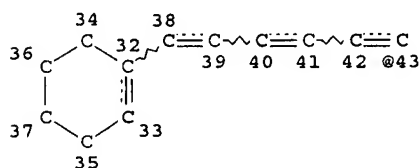
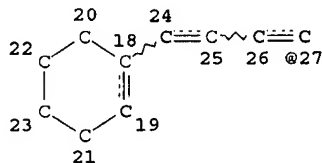
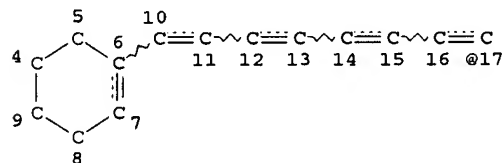
VAR G1=17/27/43  
 REP G2=(2-3) A  
 VAR G3=C/N/O/S  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 51

STEREO ATTRIBUTES: NONE

L14 8881 SEA FILE=REGISTRY SUB=L3 SSS FUL (L7 OR L8 OR L9 OR L10 OR L11 OR L12)

L25 STR

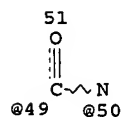
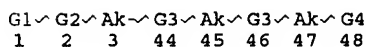
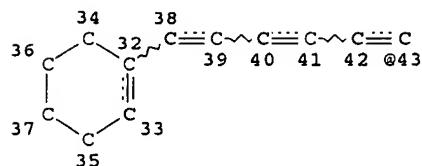
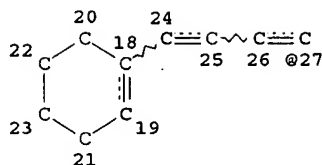
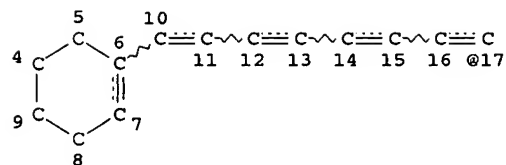


G1~G2~Ak~G3~Ak~G3~Ak~G3~Ak~G3~Ak~G5~G1  
 1 2 3 44 45 46 47 48 49 50 51 52 53

VAR G1=17/27/43  
 VAR G2=54-1 55-3/55-1 54-3  
 VAR G3=C/N/O/S  
 VAR G5=58-51 57-53/57-51 58-53  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 55

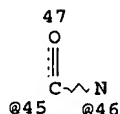
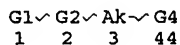
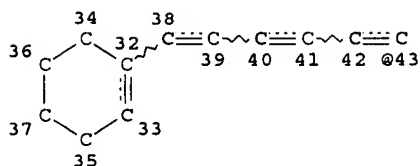
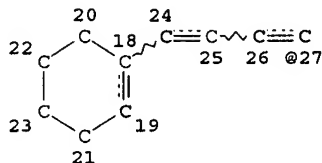
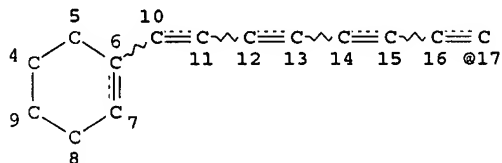
STEREO ATTRIBUTES: NONE  
 L26 STR



VAR G1=17/27/43  
VAR G2=49-1 50-3/49-3 50-1  
VAR G3=C/N/O/A  
VAR G4=F/OH/NH2/ME  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE  
L27 STR

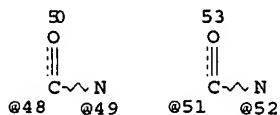
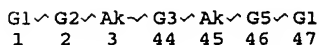
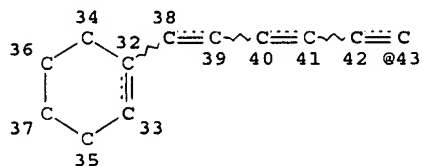
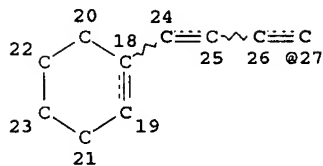
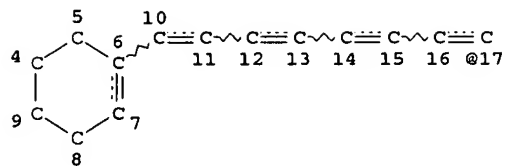


VAR G1=17/27/43  
VAR G2=45-1 46-3/45-3 46-1  
VAR G4=F/OH/NH2/ME  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 43

STEREO ATTRIBUTES: NONE  
L28 STR

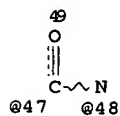
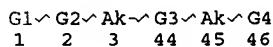
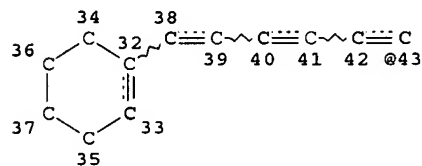
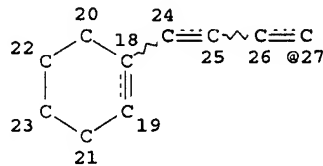
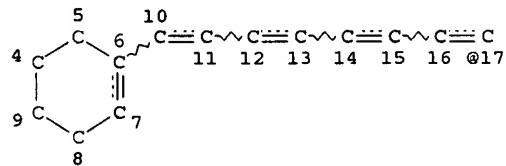




VAR G1=17/27/43  
VAR G2=48-1 49-3/48-3 49-1  
VAR G3=C/N/O/S  
VAR G5=51-45 52-47/51-47 52-45  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 49

STEREO ATTRIBUTES: NONE  
L29 STR

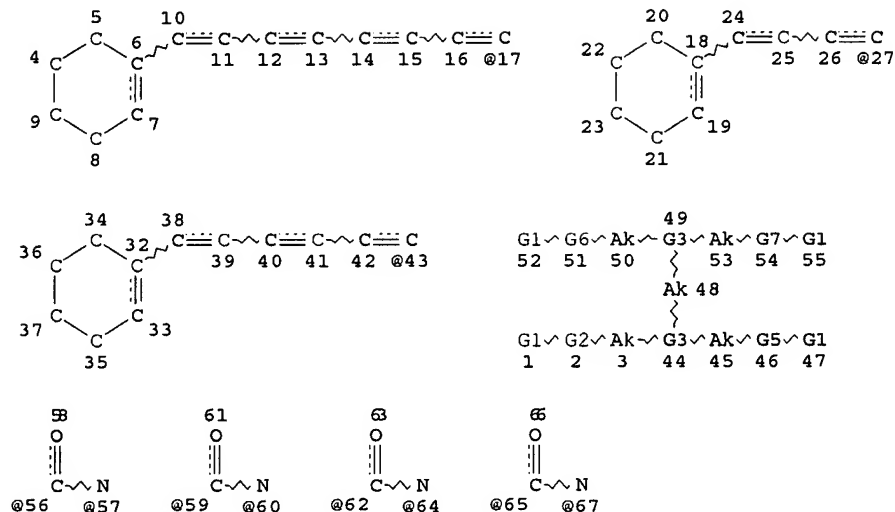


VAR G1=17/27/43  
VAR G2=47-1 48-3/48-1 47-3  
VAR G3=C/N/O/S  
VAR G4=F/OH/NH2/ME  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 45

STEREO ATTRIBUTES: NONE

L30 STR



VAR G1=17/27/43

VAR G2=56-1 57-3/57-1 56-3

VAR G3=C/N/O/S

VAR G5=59-45 60-47/60-45 59-47

VAR G6=62-52 64-50/64-52 62-50

VAR G7=65-53 67-55/65-55 67-53

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 63

STEREO ATTRIBUTES: NONE

L32 221 SEA FILE=REGISTRY SUB=L14 SSS FUL (L25 OR L26 OR L27 OR L28 OR L29 OR L30)

100.0% PROCESSED 1126 ITERATIONS

221 ANSWERS

SEARCH TIME: 00.00.27

=&gt; b hcap

FILE 'HCAPLUS' ENTERED AT 16:27:52 ON 30 AUG 2007

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FILE COVERS 1907 - 30 Aug 2007 VOL 147 ISS 10

FILE LAST UPDATED: 29 Aug 2007 (20070829/ED)

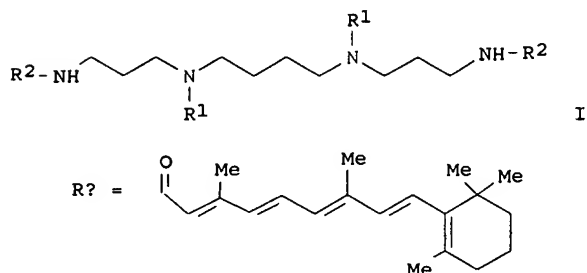
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; d bib abs fhitr 160 tot

L60 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2004:182730 HCAPLUS  
 DN 140:235912  
 TI Preparation of polyamine conjugates with acidic retinoids and their  
 therapeutic applications  
 IN Papaioannou, Dionysios; Drinas, Dionysios; Tsambaos, Dionysios  
 PA Greece  
 SO PCT Int. Appl., 45 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO2004018001	A1	20040304	2002WO-GR00045	20020822 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU2002324242	A1	20040311	2002AU-0324242	20020822 <--
EP---1569694	A1	20050907	2002EP-0758661	20020822 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US2006189696	A1	20060824	2005US-0549905	20050920 <--
PRAI 2002WO-GR00045	A	20020822	<--	
OS MARPAT 140:235912				
GI				



AB The present invention discloses preparation of novel polyamine conjugates with acidic retinoids, such as I [R1 = H, Ra; R2 = H, Ra], for their therapeutic use as RNase P inhibitors and anti-inflammatory agents. I have been readily obtained using as key-step the condensation of linear, conformationally restricted, cyclic and branched polyamines or suitably protected derivs. with vitamin A derivs. These compds. inhibit the ribozyme RNase P (RNase P) and the production of interleukin-2 (IL-2) and interferon- $\gamma$  (INF- $\gamma$ ) by peripheral blood mononuclear cells in vitro. Thus, retinoid analog I [R1 = Ra; R2 = H (II)] was prepared via multistep synthetic sequence starting from I [R1 = H, R2 = COCF3]. (CF<sub>3</sub>CO<sub>2</sub>H)<sub>2</sub> and all-trans-retinoic acid. II was tested for D. discoideum RNase P activity [K<sub>i</sub> = 1.1  $\mu$ M].

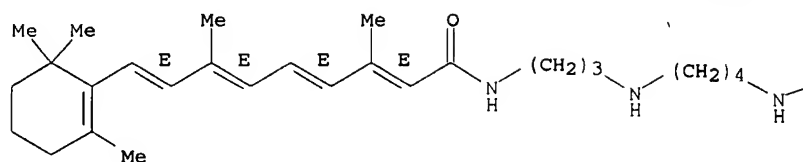
IT 666854-46-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); PREP (Preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (coupling agent; preparation of polyamine conjugates with acidic retinoids and their therapeutic use as RNase inhibitors and anti-inflammatory agents)

RN 666854-46-2 HCAPLUS  
 CN Retinamide, N,N'-[1,4-butanediylbis(imino-3,1-propanediyl)]bis- (9CI) (CA

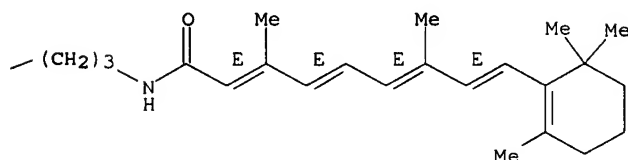
INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=&gt; d his

(FILE 'HOME' ENTERED AT 10:18:53 ON 30 AUG 2007)

FILE 'REGISTRY' ENTERED AT 10:19:05 ON 30 AUG 2007

L1 STR  
L2 33 L1  
L3 10259 L1 FULL  
SAV TEM J905C1/A L3

FILE 'HCAPLUS' ENTERED AT 10:40:25 ON 30 AUG 2007

L4 1 US20060189696/PN OR (US2005-549905 OR WO2002-GR00045)/AP,PRN

FILE 'REGISTRY' ENTERED AT 10:42:25 ON 30 AUG 2007

FILE 'HCAPLUS' ENTERED AT 10:42:32 ON 30 AUG 2007

L5 TRA L4 1- RN : 39 TERMS

FILE 'REGISTRY' ENTERED AT 10:42:32 ON 30 AUG 2007

L6 39 SEA L5  
L7 STR L1  
L8 STR L1  
L9 STR L1  
L10 STR L1  
L11 STR L1  
L12 STR L1  
L13 50 (L7 OR L8 OR L9 OR L10 OR L11 OR L12) SAM SUB=L3  
L14 8881 (L7 OR L8 OR L9 OR L10 OR L11 OR L12) FULL SUB=L3  
SAV TEM J905C1S/A L14  
L15 7 L14 AND L6  
SEL RN 1-5  
L16 5 E1-5 AND L15

FILE 'HCAPLUS' ENTERED AT 11:37:05 ON 30 AUG 2007

L17 1 L16

FILE 'REGISTRY' ENTERED AT 11:43:39 ON 30 AUG 2007

L18 2911 L14 AND N/ELS

FILE 'HCAPLUS' ENTERED AT 11:44:43 ON 30 AUG 2007

L19 2237 L18  
L20 716 L19 (L) PREP+NT/RL  
L21 637 L20 AND (PD<=20020822 OR AD<=20020822 OR PRD<=20020822)  
L22 227 L21 AND P/DT

SEL AN 1-20  
 L23 20 E191-230 AND L22  
 SEL HIT RN

FILE 'REGISTRY' ENTERED AT 12:48:37 ON 30 AUG 2007

L24 36 E231-266  
 L25 STR L7  
 L26 STR L8  
 L27 STR L9  
 L28 STR L10  
 L29 STR L11  
 L30 STR L12  
 L31 13 L25-30 SAM SUB=L14  
 L32 221 L25-30 FULL SUB=L14  
 SAV TEM J905C1S1/A L32  
 L33 4 L32 AND L6  
 L34 31 L32 AND N>=3  
 L35 4 L34 AND L6  
 L36 27 L34 NOT L35  
 L37 632 L14 AND N>=3  
 L38 601 L37 NOT L34  
 L39 5213 (C20H28O2 OR C17H24O2 OR C15H22O2) AND C6/ES  
 E CYCLOHEXENE/CN  
 L40 1 E3  
 L41 665 46.150.2/RID AND L39  
 L42 STR  
 L43 20 L42  
 L44 461 L42 FULL  
 SAV TEM J905RET/A L44  
 L45 STR  
 L46 16 L45  
 L47 SCR 1994  
 L48 16 L45 AND L47  
 L49 STR L45  
 L50 24 L49  
 L51 24 L47 AND L49  
 L52 STR L49  
 L53 0 L52  
 L54 SCR 1568 OR 1569 OR 1570 OR 1597 OR 1598 OR 1609 OR 1610  
 L55 0 L47 AND L54 AND L52

FILE 'HCAPLUS' ENTERED AT 15:36:40 ON 30 AUG 2007

L56 410 L44 (L) RACT+NT/RL  
 L57 323 L14 AND L56  
 L58 279 L14 (L) PREP+NT/RL AND L57  
 L59 144 L18 (L) PREP+NT/RL AND L58  
 L60 1 L59 AND L4  
 L61 143 L59 NOT L60  
 L62 118 L61 AND (PD<=20020822 OR AD<=20020822 OR PRD<=20020822)  
 L63 33 L62 AND L37 (L) PREP+NT/RL  
 SEL HIT RN

FILE 'REGISTRY' ENTERED AT 15:41:18 ON 30 AUG 2007

L64 297 E1-297

=> => b reg

FILE 'REGISTRY' ENTERED AT 16:30:33 ON 30 AUG 2007  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file  
 provided by InfoChem.

STRUCTURE FILE UPDATES: 29 AUG 2007 HIGHEST RN 945828-45-5  
 DICTIONARY FILE UPDATES: 29 AUG 2007 HIGHEST RN 945828-45-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

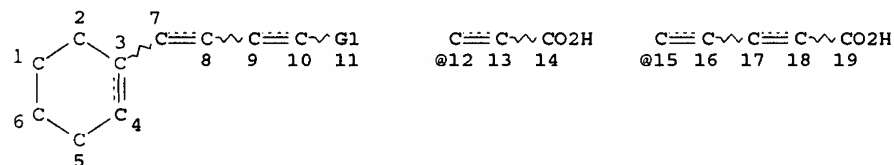
Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d que sta l44

L42 STR



VAR G1=CO2H/12/15

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L44 461 SEA FILE=REGISTRY SSS FUL L42

100.0% PROCESSED 49029 ITERATIONS

461 ANSWERS

SEARCH TIME: 00.00.01

=>